Destroying rainforest for economic gain is like burning a Renaissance painting to cook a meal.

Edward O. Wilson



Cautionary Reflections

April is a good month for reflection. Winter is a memory (for us in North Carolina a warm memory) and summer heat is too far away to be threatening. April 22 is Earth Day and global environmental issues need attention. Some say the climate is getting warmer while others say that all we are experiencing is normal climate variation, El Niño not withstanding. Whom are we to believe? Scientists are not uniformly agreed on global warming issues. The issues are extremely complex and the data controversial. If scientists cannot agree, then to whom should nonscientists listen?

Recently, we received in the mail a clipping from the Wall Street Journal (1) with a headline that said "Science Has Spoken: Global Warming Is a Myth." Accompanying the article was a review titled "Environmental Effects of Increased Atmospheric Carbon Dioxide" written in a style and laid out in a manner reminiscent of that used by scientific journals. In fact, at first glance we assumed it was a reprint from a peer reviewed journal, but it was not. In addition, a card was included apparently from Frederick Seitz, Past President of the National Academy of Sciences, U.S.A. and President Emeritus, Rockefeller University, urging us to "sign and return the enclosed petition card." On the petition card was written:

We urge the United States government to reject the global warming agreement that was written in Kyoto, Japan in December, 1997, and any similar proposals. The proposed limits on greenhouse gases could harm the environment, hinder the advance of science and technology, and damage the health and welfare of mankind. There is no convincing evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing or will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth.

Dismissing the reality of global warming seems premature and irresponsible in view of the current data. If global warming is not real, that's wonderful; but if it is, then future generations would have to pay the price for our poor judgement. Seitz's petition reminds us of the approach used by the tobacco industry over the decades when asked if tobacco is addictive and harmful. Denials offered by the tobacco industry were disingenuous and resulted in untold human misery.

In dealing with global environmental issues, the question comes down to: Whom do we believe and to whom should the public listen? Mistakes could be devastating, opinion polls are not the answer, and petitions are not a valid tool in the search for sci-

entific truth. The smart thing to do, however, is to be cautious. It would be extremely unwise to precipitate irreversible changes in global climate and then be ultimately forced to concede that we were wrong. Both sides to the question regarding global warming must be examined and discussed openly.

A new approach to environmental regulation is currently under review. This new approach is based on what has become known as the "precautionary principle." The principle, if adopted into law, promises to have far-reaching effects on how we deal with environmental issues. The precautionary principle underlies several important environmental treaties and agreements including the Montreal Protocol on Substances That Deplete the Ozone Layer (1987) and the United Nations Framework Convention on Climate Change (1992). Passage of the principle into law "would require a manufacturer to demonstrate safety for all new chemicals and to be held responsible if damage occurs." In addition, "when an activity raises threats to the environment or human health, precautionary measures should be taken, even if some cause-and-effect relationships are not fully established scientifically"(2). Those that oppose the adoption of this principle claim that the principle is unscientific, reactionary, and opposed to technological and scientific progress. Consideration of the precautionary principle in dealing with the environment is an issue that must be the given highest priority. These considerations should embrace the principles of sustainable development to protect the public health and the environment, and at the same time avoid unnecessary regulation.

There are numerous environmental problems for which the precautionary principle might be invoked. For example, the burning of rainforests around the world is of immediate concern not only for dealing with climate change and global warming but also in the wanton destruction of rare and endangered species. The cover picture of this April issue was taken by NASA in 1984 and shows the burning of rainforests in Brazil; here it is 14 years later and still the burning continues. The destruction of rainforests should be stopped now because later may be too late and recovery may be impossible.

In addition to being a good month for reflections on the state of the global environment, this month marks the fifth anniversary of the revised *Environmental Health Perspectives (EHP)*, the journal of the National Institute of Environmental Health Sciences. The revised *EHP* was designed to meet the rapidly escalating needs of an increasingly complex technological world where rapid dissemination of reliable information is absolutely essential for the preservation of lives and environment. We hoped that the dissemination of information about environmental health issues would contribute to their solution through the education of scientists, legislators, and educators. In this last year we have striven for speed in publi-

cation without compromising quality. Generally, from acceptance of a scientific article to its publication takes less than 6 months. In order to improve even more in this area, we have taken to first publishing articles accepted for publication on the internet. By doing so, we have decreased the time from acceptance to publication to under 8 weeks. Each article published on the internet is assigned a unique URL coupled to a specific date of publication. This allows authors to get their articles into print very quickly and permits them to more closely identify dates of publication. Publication of an article in the paper form of the monthly journal will occur about 2 to 3 months after its appearance in the accepted articles list.

We have also changed the way the journal is distributed. Previously, the journal was distributed almost exclusively through the Government Printing Office (GPO). This service of the GPO

will continue but, in addition, *EHP* and its *Supplements* are now being distributed through the Environmental Health Information Service (EHIS) in both paper and electronic forms. *EHP* and its *Supplements* are now available over the internet and can be searched online (3).

Gary E. R. Hook and George W. Lucier Editors-in-Chief

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Principles and Processes for Evaluating Endocrine Disruption in Wildlife

EDITED BY RONALD KENDALL, RICHARD DICKERSON, JOHN GIESY, AND WILLIAM SUK

Endocrine disruption in wildlife has emerged as a significant factor in scientific debate about environmental policy. Using a risk-based approach, *Principles and Processes for Evaluating Endocrine Disruption in Wildlife* provides state-of-the-art information, principles, and processes for evaluating the effects of endocrine-disrupting chemicals in wildlife. Although the topic of environmental endocrine disruption is one that has generated significant controversy, it is evident from available scientific data that endocrine disruption, including developmental anomalies and disruption in reproductive processes, may be of concern in birds, mammals, and other wildlife, including fishes. *Principles and Processes for Evaluating Endocrine Disruption in Wildlife* is a valuable reference tool for educational purposes as well as for environmental and industrial managers and planners, regulators, environmental and human health scientists, public health workers, and people involved in environmental law and policy.

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